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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/673,567	10/18/2000	Yoshihiko Hibino	001248	8750

7590

09/25/2003

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EXAMINER

SCHWARTZ, PAMELA R

ART UNIT

PAPER NUMBER

1774

DATE MAILED: 09/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/673,567

Applicant(s)

HIBINO ET AL.

Examiner

Pamela R. Schwartz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 12.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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1. Claim 3 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Rejection based upon the use of Japanese Industrial Standard JIS-8148 has been overcome.

The specification does not enable one of ordinary skill in the art to make the invention when it requires the presence of a "polyvinyl alcohol-cation monomer graft polymer." The only examples of what is meant by the term appear to references to foreign trade-named materials. No specific example of monomers have been set forth. There still has been no evidence provided that the material disclosed therein is available in the United States. Since trade-named formulations may change over time, evidence is required that establishes that the material with the disclosed trade-name at the time of applicants' filing is available to one of ordinary skill in the art in this country and that the specification would have enabled one of ordinary skill in the art to obtain this material.

2. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koide et al. (5,756,151) in view of Yasuda et al. (4,944,988) and Koji et al. (EP 0745,488). Koide et al. disclose a paper which may be used in an ink jet recording process (see col. 1, lines 9-14). At col. 3, the reference discloses brightness values of diffuse blue reflectance between 87 and 100 percent, fluorescence intensity values of 2.5 to 10, the use and control of fluorescent brightness in recording papers and that the type of fluorescent brightener used by applicants is well known in the art (see col. 3, lines 12-21, 39-61 and 64-65). The reference also discloses controlling the amount of

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brightener in order to achieve desirable results. The medium is formed from a paper support which includes loading material, pulp, brightening agent and starch as a binder (see Example 1).

Yasuda et al. teach forming an ink jet recording layer with a combination of a polyvinyl alcohol and other binder materials in order to achieve a medium with good printing quality and in particular, excellent surface hardness (see the Abstract and col. 7, line 22- col. 8, line 48). It would have been obvious to one of ordinary skill in the art to utilize a cationic polyvinyl alcohol graft copolymer as a binder or additive in or on the paper of the primary reference in order to increase surface hardness of the resulting medium.

Koji et al. disclose formation of an ink jet recording material with a support including calcium carbonate as loading material, controlled ash content and using a combination of pulp that may include waste paper pulp. See page 4, lines 44-57 and page 5, lines 22-26. Use of calcium carbonate filler is taught to improve water resistance, and the ash content is controlled to maintain absorption of ink and to control water resistance as well. Based upon the disclosure of Koji et al, it would have been obvious to one of ordinary skill in the art to use calcium carbonate as the loading material of the primary reference, to include waste paper pulp in the support and to control the ash content in order to control properties of ink absorption and water resistance in desired ranges. Use of pigment or dye in a coating formulation would have been obvious to one of ordinary skill in the art in order to obtain a paper of desired hue.

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3. Claims 1, 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over either of Miyamoto et al. (4,620,197) or Kawamura (JP 61-014979). Miyamoto et al. disclose an ink jet recording medium comprising a paper support having a composition including a cationic fluorescent agent, a cationic resin, and optionally a water soluble resin binder on the surface thereof for purposes of obtaining a brightening effect and the ability to insolubilize a water soluble dye (see col. 3, lines 48-52, col. 4, lines 5-46). The solution may be coated on the base paper using a size press. The reference does not disclose the ISO brightness or fluorescence intensity, however, in light of the purpose of the prior art to obtain a medium with improved brightness, it would have been obvious to one of ordinary skill in the art to optimize brightness values of the medium.

Kawamura discloses a paper also with water resistance and fluorescent brightness having a fluorescent brightener, cationic resin and water-soluble derivative (equivalent to a binder) on its surface. As with Miyamoto et al., it would have been obvious to one of ordinary skill in the art to optimize brightness properties of the medium since this is one of the disclosed purposes of the medium. Use of an on-machine size press would also have been obvious to one of ordinary skill in the art because it is a conventional technique used to treat paper supports with treating agents.

Inclusion of a dye or pigment in the coating composition of either reference would have been obvious to one of ordinary skill in the art in order to impart a hue to the paper surface.

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4. Applicant's arguments filed August 15, 2003 have been fully considered but they are not persuasive. With respect to the polyvinyl alcohol-cation monomer graft polymer, applicants provide no evidence that the material was available in this country at the time of the invention, but argue that the company has a web site and that if this is insufficient, one of ordinary skill in the art in this country could hire someone to call the company in Japan. Once again, since this is not evidence that the disclosure is or ever was enabling, it does not overcome the rejection.

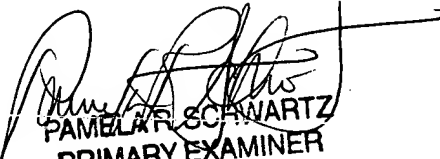
Applicants' arguments concerning Yasuda et al. are unpersuasive. As stated by applicants, Yasuda et al. disclose both a cationic water insoluble binding polymer, as well as a water soluble water-proof agent. However, Yasuda et al. does not state that this agent may not be used with a water soluble binder. In fact, at col. 8, Yasuda et al. indicate that an additional binder may be used and may be either water soluble or insoluble, cationic or anionic (see col. 8, lines 38-39). The examiner maintains her position that cationic fixing agents are well known as are the properties associated with their use.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pamela R. Schwartz whose telephone number is 703-308-2424. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly, can be reached on (703) 308-0449. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9310.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

PRSchwartz
September 21, 2003



PAMELA R. SCHWARTZ
PRIMARY EXAMINER